



## Coordination and Decomposition of Large-Scale Planning and Scheduling Problems with Application to Steel Production

By Chaojun Xu

Shaker Verlag Dez 2013, 2013. Taschenbuch. Condition: Neu. Neuware - Modern large-scale industrial production sites consist of many production areas each being subject to a variety of technical constraints. The general objective of planning and scheduling is to ensure the on-time delivery of the end product with the lowest possible consumption of resources. In the metal industry, the melt shop and the hot rolling mill represent about 90% of the entire steel production chain energy consumption. An adequate coordination between these two production areas can allow minimizing capital investment, space requirements and power consumption by keeping the storage of the intermediate products as low as possible. Traditionally, optimal schedules of the both production sections are determined separately using a combination of mathematical programming and heuristics. Therefore an optimal schedule of the whole production chain cannot be guaranteed. On the other hand, solving the complete problem for the combined production areas leads to a combinatorial explosion of the mixed-integer linear programming (MILP) model and makes the problem intractable. A bottom-up coordination heuristics of two large-scale flexible multi-stage batch (flow shop) scheduling problems is developed on the basis of an improved Bender's Decomposition Algorithm (Bender, 1962). An upper-level coordinator is formulated as...



[READ ONLINE](#)  
[ 6.66 MB ]

### Reviews

*This pdf may be worth buying. It is actually filled with knowledge and wisdom Your daily life span will be convert as soon as you comprehensive reading this article publication.*

-- **Ms. Earline Schultz**

*Very good electronic book and valuable one. It is actually writter in basic words instead of difficult to understand. I discovered this ebook from my i and dad encouraged this publication to discover.*

-- **Prof. Jevon Frami**

## Relevant Books



### **Pete's Peculiar Pet Shop: The Very Smelly Dragon (Gold A)**

Pearson Education Limited. Paperback. Book Condition: new. BRAND NEW, Pete's Peculiar Pet Shop: The Very Smelly Dragon (Gold A), Sheila May Bird, This title is part of Bug Club, the first whole-school reading programme that joins books with an online reading world...



### **Shadows Bright as Glass: The Remarkable Story of One Man's Journey from Brain Trauma to Artistic Triumph**

Free Press. Hardcover. Book Condition: New. 1439143102 SHIPS WITHIN 24 HOURS!! (SAME BUSINESS DAY) GREAT BOOK!!



### **Robert Ludlum's The Bourne Objective (Jason Bourne Novels)**

Orion, 2011. Paperback. Book Condition: New. A new, unread, unused book in perfect condition with no missing or damaged pages. Shipped from UK. Orders will be dispatched within 48 hours of receiving your order. Orders are dispatched Monday â€” Friday. FREE Returns...



### **Joey Green's Rainy Day Magic: 1258 Fun, Simple Projects to Do with Kids Using Brand-name Products**

Fair Winds Press, 2006. Paperback. Book Condition: New. Brand new books and maps available immediately from a reputable and well rated UK bookseller - not sent from the USA; despatched promptly and reliably worldwide by Royal Mail;



### **Henry's Hand**

Harry N. Abrams. 1 Cloth(s), 2013. hard. Book Condition: New. Even best friends can take each other for granted. Just ask Henry, a Frankensteinish, bits-and-pieces kind of monster who sometimes loses track of his stray body parts. His best friend is his...



### **Most cordial hand household cloth (comes with original large papier-mache and DVD high-definition disc) (Beginners Korea(Chinese Edition))**

paperback. Book Condition: New. Ship out in 2 business day, And Fast shipping, Free Tracking number will be provided after the shipment.Paperback. Pub Date: Unknown in Publisher: Henan Science and Technology Press Information Original Price: 78.00 yuan Author: Publisher: Henan Science and...